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#### Introduction

This Worldwide Equipment Guide (WEG) serves as an interim guide for use in training, simulations, and modeling until the publication of FM 100-65, *Capabilities-Based Opposing Force: Worldwide Equipment Guide*. The WEG is designed for use with the FM 100-60 series of capabilities-based opposing force field manuals. It provides the basic characteristics of selected equipment and weapons systems readily available to the capabilities-based OPFOR, and generally listed in either *FM 100-61*, *Armor- and Mechanized-Based Opposing Force: Organization Guide* or *FM 100-63*, *Infantry-Based Opposing Force: Organization Guide*. Selected weapons systems and equipment are included in the categories of infantry weapons, infantry vehicles, reconnaissance vehicles, tanks/assault vehicles, antitank, artillery, air defense, engineer and logistic systems, rotary- and fixed-wing aircraft, and communications equipment.

The pages in this WEG are designed for insertion into loose-leaf notebooks. Since this guide does not include all possible OPFOR systems identified in the OPFOR field manuals, equipment sheets covering additional systems not contained in this initial issue will be published periodically. Systems selected will be keyed directly to baseline equipment contained in the 100-60 series and substitute systems in the appropriate substitution matrix. The WEG is scheduled for eventual publication on the worldwide web for use by authorized government organizations.

#### WORLDWIDE OPFOR EQUIPMENT

Due to the proliferation of weapons through sales and resale, wartime capture, and licensed or unlicensed production of major end items, distinctions between equipment as friendly or OPFOR have blurred. Sales of upgrade equipment and kits for application to weapon systems have further blurred distinctions between old or obsolete systems and modern systems. This WEG describes base models listed in the FMs or upgrades of those base models, which reflect current capabilities. Many less common variants and upgrades are also addressed.

#### HOW TO USE THIS GUIDE

The WEG is organized by categories of equipment, in chapters. The format of the equipment pages is basically a listing of parametric data. This permits updating on a standardized basis as data becomes available. For meanings of acronyms and terms, see the Glossary. Please note that although most terms are the same as U.S. terminology, some reflect non-U.S. concepts and are not comparable or measurable against U.S. standards. For example, if an OPFOR armor penetration figure does not say RHA (rolled homogeneous armor), do not assume that is the standard for the figure. Please consult the Glossary often. If questions remain, contact this office.

System names refer back to the field manuals. However, they also reflect intelligence community changes in naming methods. Alternative Designations include the manufacturer's name, as well as U.S./NATO designators. Note also that the WEG focuses on the complete weapon system (e.g., AT-4/5 antitank guided missile launcher or 9P148 ATGM launcher vehicle), versus a component or munition (9P135 launcher assembly or AT-4/5 ATGM).

Many common technical notes and parameters are used in chapters 2 through 7, since the systems contained in those chapters have similar weapon and automotive technologies. Chapters 1 (Infantry Weapons), 8 (Engineer and Logistics) and 9 (Rotary-wing Aircraft) offer systems that have many unique parameters and therefore may not be consistent with those in other chapters.

Please note the updated Threat Support Directorate website. The WEG and other TSD products can be downloaded at: <a href="http://leav-www.army.mil/threats/index/index.htm.">http://leav-www.army.mil/threats/index.htm.</a>

We solicit your assistance in finding unclassified information which is not copyright-restricted, and which can be certified for use. Questions and comments on systems data should be addressed to the author noted for each chapter. For general questions concerning production, content, and distribution to U.S. government organizations please contact:

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### **Units of Measure**

The following symbols and abbreviations are used in this guide.

<b>Unit of Measure</b>	<u>Parameter</u>
(°)	degrees of slope/gradient, elevation, traverse
cal	caliber—(tube length in multiples of cannon bore)
GHz	gigahertz—frequency (GHz = 1 billion hertz)
hp	horsepower ( $kWx1.341 = hp$ )
Hz	hertz—unit of frequency
kg	kilogram(s) (2.2 lb.)
kg/cm <sup>2</sup>	kg per square centimeter—pressure
km	kilometer(s)
km/h	km per hour
kW	kilowatt(s) (1 kW = 1,000 watts)
liters	liters—liquid measurement (1 gal. = 3.785 liters)
m	meter(s)—if over 1 meter use meters; if under use mm
$m^3$	cubic meter(s)
m <sup>3</sup> /hr	cubic meters per hour—earth moving capacity
m/hr	meters per hour—operating speed (earth moving)
MHz	megahertz—frequency (MHz = 1 million hertz)
mach	mach + ( <u>factor</u> ) —aircraft velocity (See Glossary)
min	minute(s)
mm	millimeter(s)
m/s	meters per second—velocity
mt	metric ton(s) (mt = $1,000 \text{ kg}$ )
rd/min	rounds per minute—rate of fire
RHAe	rolled homogeneous armor (equivalent)
shp	shaft horsepower—helicopter engines ( $kWx1.341 = shp$ )
μm	micron/micrometer—wavelength for lasers, etc.

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#### **ERRATA NOTES**

The following changes reflect updated information about data in preceding editions of the Worldwide Equipment Guide. We recommend that users note the changes in their copies. In a future edition, we will incorporate changes into published pages.

Page	Change
2-5	Under VARIANTS, delete: 1V118 Reostat. This vehicle is not artillery-related. See sheet for ACRV 1V119.
2-9	Under VARIANTS, after Artillery command and reconnaissance vehicles: Change to: ACRV 1V18 and 1V19 are battery and battalion command and observation vehicles, respectively.
4-13	Under line drawing, add the following entry: T-62M with Bra Armor
	After Applique Armor (mm): Bra armor, add is common
4-15	Under <b>VARIANTS</b> , add the following entry: <b>T-72B1</b> : Variant introduced in 1986 without ATGM launch capability.
4-15	Under <b>VARIANTS</b> , add the following entry: <b>T-72BV:</b> Under the Russian naming scheme, a T-72B with ERA could be expected to add $\underline{V}$ to the name.
6-17	Page change to 6-14.1, to better reflect page order.
7-12	SA-8b/GECKO, change page number to 7-12.2.
8-9	Page change to 8-10, to better reflect page order.
8-14	Under <b>VARIANTS</b> , add the following entry: <b>TZ 8-255B:</b> POL truck, capacity 8,000 liters.

### **Supplement Page Changes**

For this supplement please make page changes as noted below:

System	<u>Page</u>	<u>Change</u>
Table of Contents	iii, iv	Replace pgs i, ii
Introduction	vii, viii*	Replace pgs iii, iv
Units of Measure, Errata	ix, x	Replace pg v, Add x
Supplement Page Changes	xi, xii	Add
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T-90 MBT	4-22.1, 2	
M36 Self-Propelled Antitank Gun	5-4.1,2	Replace/Add
Red Arrow 8 ATGM Launcher	5-19, 20	Add
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SA-18/GROUSE Manportable SAM System	7-11*	Replace
SA-3/GOA SAM System	7-12*	Add/Replace
SA-6/GAINFUL SAM System	7-12.1	Add
SA-8b/GECKO SAM System	7-12.2, .3	Replace for pg no.
SA-13b/GOPHER SAM System	7-13, 14*	Add/Replace
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MT-55A Armored Vehicle-Launched Bridge	8-10.1	Add
MTU-72 AVLB	8-10.2	
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Glossary	Glossary-1-6	Replace pgs 1-4

<sup>\*</sup> Replace previously published equipment sheet because it backs up to added sheet.